

Connecticut Department of Environmental Protection



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photo courtesy of National Wildlife Federation

**WE ALL NEED
CLEAN WATER**
NATIONAL WILDLIFE WEEK • MARCH 20-26 1977

JOIN AND SUPPORT THE NATIONAL WILDLIFE FEDERATION AND STATE AFFILIATES

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From the Editor's Desk



Water.

It cools feet and warms feet

Cools engines.

Makes tea and coffee, quenches thirst.

Washes clothes, dishes, people and objects.

Creates power; carries commerce.

Defines borders.

*Changes the properties of chemicals
and elements;*

*Mixes soups,
extinguishes fires.*

*Opens pores; cures muscular ailments;
washes wounds.*

Provides recreation.

*Spreads germs,
erodes land, metal and wood.*

*Supports life; destroys life;
becomes rain, snow, hail, and polluted.*

*Sobers drunks;
blesses people and animals.*

Hides murder weapons.

Stains clothes.

Is useful in pranks and gags.

Carries waste;

*Becomes perspiration and cools
skin temperatures.*

*Wets handkerchiefs to wet brows;
removes mascara and lipstick;
softens beards, lubricates faces,
brushes teeth.*

Reduces swelling.

Thins paint and inks.

*Is pleasant to see, hear and touch;
unpleasant in your clothes.*

*Spills, spoils, spurts, sprinkles,
splashes, ripples, runs, falls,
flows and cascades.*

*When displaced, it creates buoyancy,
leaves wakes, makes noise.*

Dilutes and diffuses,

*Wrinkles skin and softens hair,
Produces food.*

*Removes oils, but doesn't mix
with petroleum products.*

Is worshipped, hated, and feared.

*Is the main and fundamental
ingredient of life,
and the chief mixer of bourbon.*

Last month in the Citizens' Bulletin our main article concerned flood management in Connecticut. In this issue articles include an update on PCB's in state waters, the on-going question of the future uses of water company lands, and the National Wildlife Federation's 1977 Wildlife Week theme: "We All Need Clean Water." The April issue of the Bulletin will contain several articles on the sport of fishing and fish resources in this state.

There is no getting away from it. Water is such a vital resource, it continues to crop up daily in the news.

In Connecticut as in the nation at large waters are becoming increasingly cleaner. The Federal Water Pollution Control Act Amendments of 1972 established an extremely complicated, highly ambitious program to clean up the nation's waters. The 1972 act emphasized industrial and municipal "point sources" of water pollution, directing that regulatory requirements on these sources be sharply tightened, and that the federal grant program for sewage treatment plant construction be greatly expanded. Long strides toward these goals have been made.

But as we move toward the prime goal of "clean water for everyone," many new problems of safeguarding our water resources arise. For example, there was virtually no citizen awareness of the dangers of PCB's until about five years ago; the discovery of their presence in our waterways has spurred federal and state agencies into action (pg. 6).

Another surfacing problem in water resource management concerns the future of water company lands. Until the 1970's it was assumed by nearly everyone that water company lands in Connecticut would remain as open space in perpetuity. Now we face the challenge of the best use of these lands (pg. 4).

New problems...new programs, and we continue to make good progress in our struggle for higher water quality.

Thomas J. Turich



--(Courtesy of the American
Forestry Association)

National Wildlife Week

"We All Need Clean Water" will be the theme for the 40th Annual National Wildlife Week, March 20-26.

More than 10 million students, teachers, and members of state and local conservation groups are expected to participate in the week-long, nationwide observance. The National Wildlife Federation, whose 3.5 million members make it the nation's largest conservation education organization, sponsors National Wildlife Week every year in conjunction with its 50 state affiliates.

"We chose clean water as the focus for this year's observance," G. Ray Arnett, Federation President said, "because this is a pivotal year in our long struggle to clean up the nation's waterways. We have a July 1, 1977, deadline coming up for all industries that discharge wastes into navigable waters. It requires them to apply the best practicable control technology available before discharging their wastes and we want to make sure that there is no rollback or relaxation of the new standards."

Arnett cited recent oil spills by oceangoing tankers, the contamination of Virginia's James River with deadly Kepone, and the continued dumping of city sewage sludge off the coasts of New Jersey, Delaware, and Maryland as evidence that "the water pollution problem is still very much with us despite some progress that has been made."

"For too long industries, cities, and individuals have polluted our waters indiscriminately," he said. "We've still got to educate millions of Americans to the dangers of pollution, we've got to clean up some of our old watery 'dumping grounds,' and we've got to make sure that new water pollution sources don't develop."

Under the 1972 amendments to the federal Water Pollution Control Act the nation's waters must be clean enough by 1983 for swimming, boating, and protection of wildlife. The law would end the dumping of any pollutants into waterways by 1985.

On the positive side, Arnett observed that some progress is being made in reducing water pollution. According to the U.S. Environmental Protection Agency (EPA), he said, 91 per cent of all major industrial dischargers will meet effluent standards in 1977, but a significant number of U.S. municipalities will not meet the standards.

Arnett said industrial pollution "is only a small part of the overall problem." He pointed out that pollution from so-called "non-point sources" (including surface runoff from farms and cities) continues "almost unchecked." He cited contamination from toxic chemicals contained in pesticides and insecticides as a problem requiring "urgent attention."

EPA estimated that in 1976 it cost Americans more than \$11 billion (the equivalent of \$10,000 salaries for 1.1 million persons) in pollution damages to wildlife, property, and human health.



We all need clean water

The educational program for National Wildlife Week in Connecticut will be carried out by the Connecticut Affiliate of the National Wildlife Federation, with assistance from DEP. Throughout the state DEP Conservation Officers will distribute NWF Leader's and Teacher's Kits to schools and libraries, and will stop to speak about wildlife conservation. The NWF kits contain posters, stick-ons and educational material about clean water and wildlife.

Gene Marra, Executive Director of the Connecticut Wildlife Federation, encourages all people in Connecticut to find out about and participate in the activities in their area. Call the Connecticut Wildlife Federation or your local school or library for information. Teacher's and Leader's Kits are also available from the Connecticut Wildlife Federation. (203) 347-1291.

March 20-26

Council Issues Water Co. Lands Report

The Connecticut Council on Water Company Lands has released a two-year study recommending controlled land use, water treatment and continued utility ownership of watershed land to maintain high quality drinking water in Connecticut.

The Council and its report are a result of legislation signed by the Governor in June, 1975 which placed a two-year moratorium on most sales of land held by investor-owned water utilities. Such action occurred after several large water utilities had proposed that significant portions of their holdings be made available for sale.

There are approximately 63,000 acres held by investor-owned utilities and 70,000 acres held by publicly-owned utilities in Connecticut. These lands are distributed unevenly in over eighty towns.



The Moratorium Act, P.A. 75-405, mandated that the Council use the two-year period to review applications for land sales, to supervise an inventory of utility lands and to report to the General Assembly on the disposition of utility lands. No applications for land sales have been received to date; complete results of the inventory are available at the Connecticut Department of Health.

The Council's experience with the disposition of water supply land has been one of evaluating complex and controversial questions. The hazards of non-point chemical pollution in the watershed, the efficacy of treatment plants, the success of land-use regulations, the mechanics of public land acquisition and the economic needs of the utilities have all been the subject of considerable debate.

In the report, the Council's specific recommendations are divided among 1) state policy and the approval of utility land sales, 2) federal and state requirements for filtration plant construction, and 3) public acquisition of investor-owned water utility land.

State Policy

Serious concern over the health hazards of contaminated water supplies and the practically irreversible nature of increased watershed land use require the strict protection of Connecticut's water resources. Such a policy in turn requires

that the water utilities continue to own certain lands and that the state increase both its regulation and acquisition of land sold by the utilities. The keystone of recommended state policy is the preservation of Connecticut's water supplies. This leads directly to a recommendation that certain utility lands not be approved for sale. Where approval is granted state agencies should be appropriated the requisite funds to carry out their increased responsibilities. These new responsibilities connected with the approval process which must be performed are "the monitoring of the approved change in land use, the enforcement of conditions of the permits, and the continuation of state control throughout subsequent sales." The Council found that successful state involvement in the land sales process depends upon the adequate funding of participating state agencies.

The approval of utility land sales is tied to land classification criteria. The land classification criteria reflect the dual role of protected water supply land: to eliminate certain contaminants and to prevent the introduction of additional contaminants into the water supply system. The criteria were derived from physiographic features which affect the purity and adequacy of water supplies and the transport of biological and chemical contaminants. It is recommended that the criteria be incorporated into Health Department review of proposed changes in the use of or sales of water utility land. (By state regulation 13-19-B98 the Health Department must now approve all sales or change of use of watershed land.) Also, implementation of the criteria by necessity will increase the degree of monitoring and enforcement of permit conditions required of the Departments of Health and Environmental Protection.

Report of the Connecticut Council on Water Company Lands



February, 1977

Associated with the criteria are performance guidelines which can be used to evaluate the proposed change in use for land in a particular classification. Because the Council has focused upon the public health significance of water supply lands, it has recommended additional involvement of the Commissioner of Health in the approval process.

Filtration Plant Construction

The issue of land sales has arisen in the context of the financial requirements of some utilities. Utility spokesmen in the past have claimed that the sale of land is necessary to offset the financial costs of filtration plant construction - construction being necessary in order to meet federal and state water quality standards. Another argument offered by the utilities is that filtration plant construction will negate the need to retain those watershed lands which now perform a purification function.

The Council's report, however, concluded that federal and state legislation does not now require filtration of all of Connecticut's water supplies. It also stressed that filtration plants do not perform the same vital functions as protected watersheds. The report found that "any valid analysis of the relationship of filtration plant construction and operating costs to land sales...must constantly acknowledge the very specific role of these treatment plants and the very complex contribution of land use to water quality."

The report also suggests that state financial assistance to the water utility industry should be considered. According to the Council's report, the state's obligation in assisting the utilities financially

"is to enable them (utilities) to meet the burdens of providing the necessary level of services." But, as the Council cautioned, before assistance is provided to the utilities, a number of economic studies must be performed to demonstrate satisfactorily that land sales will positively benefit the utilities and the consumer.

Public Acquisition

In reviewing the prospects for public acquisition, the Council was impressed by the number of decisions which must be made before any sale. Because so many of these factors are unknown, it felt that a method of facilitating public acquisition had to be established. To that end, it recommended a central office in DEP to coordinate and assist public acquisition and supervise the forecasting of utility sales.

Editor's Note

Council members were appointed by Governor Grasso in November, 1975. Theodore Bampton represents the Department of Environmental Protection; Richard Woodhull, the Department of Health; Harold Ames, the Department of Planning and Energy Policy; Gerald McCann, the Public Utilities Control Authority; Sarah Richards, Chairman, Ralph Loew and Muriel Lightfoot are gubernatorial appointees. They were joined by individuals from state and regional agencies, water utilities, public interest organizations, universities and the private sector. Additional assistance was also received from the Yale School of Forestry and Environmental Studies and the witnesses at the public hearing in November, 1976.

Copies of the Council's report are available from DEP's Information and Education Unit, Room 112, State Office Building, 165 Capitol Avenue, Hartford, Connecticut 06115 - (203) 566-5524.



Yale Plans Water Co. Land Workshop



The Yale School of Forestry and Environmental Studies and the Natural Resources Council of Connecticut will hold a public workshop on the Report of the Council of

Water Company Lands on March 30 from 10:30 a.m. to 4:30 p.m. in the Harkness Auditorium of the Yale Medical School, 333 Cedar Street in New Haven.

The morning session will include an analysis of the Council's recommendations concerning protection of drinking water supplies by Dr. Daniel Okun, Kenan Professor of Environmental Engineering at the University of North Carolina. Harold Hanson, former co-chairman of the state senate's Environment Committee, will present an analysis of the legislative implementation of the Council's recommendations. The afternoon session will consist of a panel review of the entire report and a question and answer period.

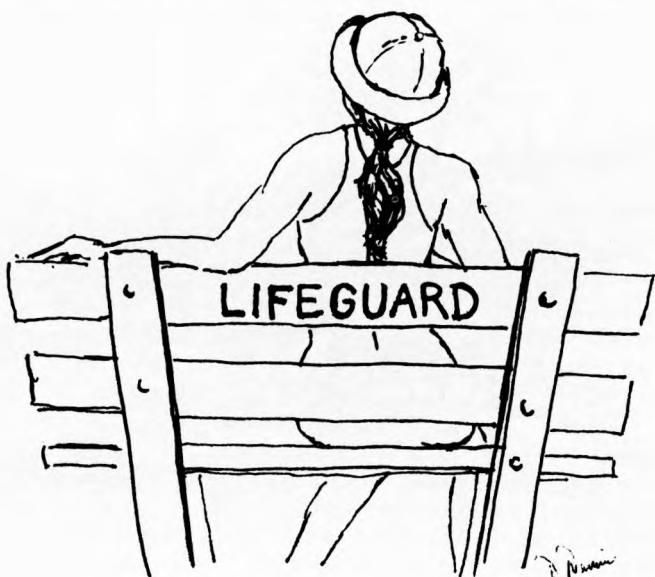
There is no registration fee for the workshop. However, those wishing a reserved lunch which will be served in the Medical School must pay \$3.00 in advance (address below). All-day parking is available in the Mall near the New Haven Green and in various lots in the downtown area.

For information and registration forms for lunch, contact the Yale School of Forestry and Environmental Studies, 205 Prospect Street, New Haven, Connecticut.

Lifeguards Wanted!

The Connecticut Department of Environmental Protection employs nearly 150 lifeguards each summer for service at various swimming parks throughout the state. Parks and Recreation Director Bill Miller says, "Our recruiting hasn't been very successful so far. We still have about 80 unfilled lifeguard positions available."

Lifeguards with the Department are employed in protecting established swimming areas, administering minor first aid and in beach related maintenance work.



In general, state park swimming areas are protected from 9 a.m. until sunset. Lifeguard crews are scheduled for two shifts in some parks and three shifts in others. All state park lifeguards must work weekends and holidays through Labor Day. Lifeguards can expect to work a minimum of 80 hours per two week pay period. During periods of extended good weather and intensive visitor use, up to 96 hours per pay period may be required. The pay rate for first year lifeguards is \$2.88 per hour -- pending legislative action.

Throughout the summer Connecticut state park lifeguards receive continuing physical and technical lifesaving training and training in the use of modern resuscitation equipment.

Qualifications

To qualify for a lifeguard position applicant must be at least 18 years of age at time of employment. Lifesaving certificates of any kind are not required for employment, nor are they accepted as proof of competency. Applicants must pass a competitive, practical examination in basic life-saving technique. The test is administered in April and May.

For more information and an application contact DEP Parks and Recreation Unit, Room 267, State Office Building, 165 Capitol Avenue, Hartford, Connecticut 06115 (203) 566-2304.

PCB Testing to Continue

The discovery two years ago of potentially unsafe levels of toxic polychlorinated biphenyls (PCB's) in Connecticut river beds has led to increased DEP investigation into how widespread the class of chemicals may be. DEP will continue this summer to test fish samples and bottom sediments for traces of PCB's.

Sediment sampling will continue based on a review of data from 40 testing stations throughout the state as part of the regular pesticide monitoring that has been conducted by DEP and the U.S. Geological Survey since 1974. Fish sampling was conducted in over a dozen waterways by DEP in 1976 in cooperation with the Connecticut Department of Health which provided the laboratory analysis.

Sediment testing results recently tabulated for 1976 reveal that in the Housatonic River Basin PCB levels at three stations (Still River at Brookfield Junction, Lake Lillinonah and the Naugatuck River at Ansonia) were considerably higher than values measured in 1974 and 1975. These increases do not likely represent increased levels within the basin system, however, since wastewater discharges of PCB's no longer exist in the Connecticut portion of the basin and upstream disposal practices in Massachusetts have improved significantly in recent years.

Then why the noted increases in 1976? According to Charles Fredette, Sanitary Engineer in DEP's Water Compliance Unit, increased PCB residues in the basin are probably due to the transportation of new sediments from upstream areas--sediment deposits in which PCB's have accumulated over the past 40 years.

"The PCB's we are finding now settling out in sediment are due to industrial discharges that go as far back as the 1930's," Fredette explained. "That's how persistent they are thought to be."

In laboratory animals PCB's are known to cause skin lesions, reproductive failures, serious eye discharges and liver cancer. In humans the cumulative effect of low level PCB's is unknown.

According to Fredette, the Department will conduct fish tests in two new areas this summer--the Kent-Cornwall section of the Housatonic River and Lake Candlewood in Fairfield County. "We decided to test fish and sediment samples in these two locations, since local fishermen expressed concern that high levels of PCB's may be present in the fish species there," Fredette remarked.

Researchers believe that like DDT, PCB's may concentrate as they move through food chains: from river sediments to minute organisms that feed on the river bottom, to fish that eat the organisms, to bird and mammals that eat the fish.

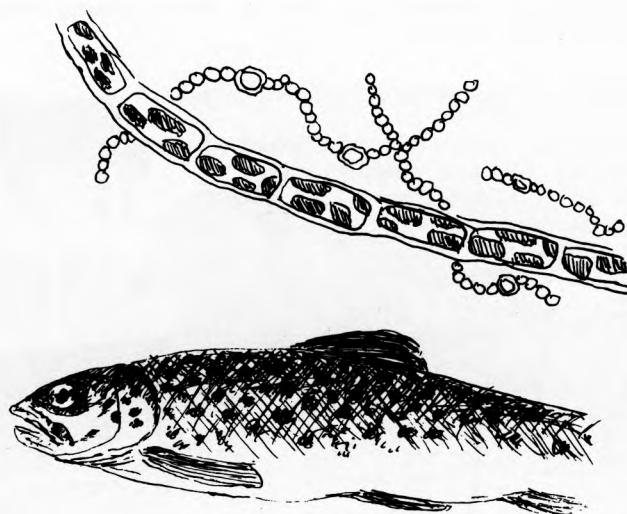
DEP results of fish testing at 6 fresh water stations in 1976 are inconclusive as to the correlation between the PCB concentrations found in the sediment and fish that live there.

The 1976 data reveal that one of eleven fish samples collected at one of the six fresh water stations recorded PCB levels in excess of the 5.0 parts per million (p.p.m.) amount set by the U.S. Food and Drug Administration as the safety level in edible fish. Two suckers from the Housatonic River in Canaan showed extremely high concentrations of 38 p.p.m. The derivation of the 5.0 standard is highly complex, being based largely on laboratory and field data and on historical, economic and social factors as they relate to health considerations.

Tests also show that in only one of eighteen samples taken at seven salt water locations fish PCB levels were above 5.0 p.p.m. The one sample of striped bass from Long Island Sound contained 5.1 p.p.m.

According to DEP Water Compliance Director Robert Taylor it is currently not known whether the levels found in the Canaan suckers are indicative of levels in panfish and gamefish in the Canaan area; DEP will conduct additional sampling of these species as soon as possible after the river is free from ice.

Cont. on Page 16.



CAM NEWS

Did you know that much of the Connecticut shoreline was once serviced by an interurban trolley system, that Connecticut was the leading New England state in the growing and harvesting of shellfish, and that the oldest example of hydraulic power in America is the Old Town Mill in New London? These are some of the features that appear in a new slide show that is now available from the DEP Coastal Area Management Program.

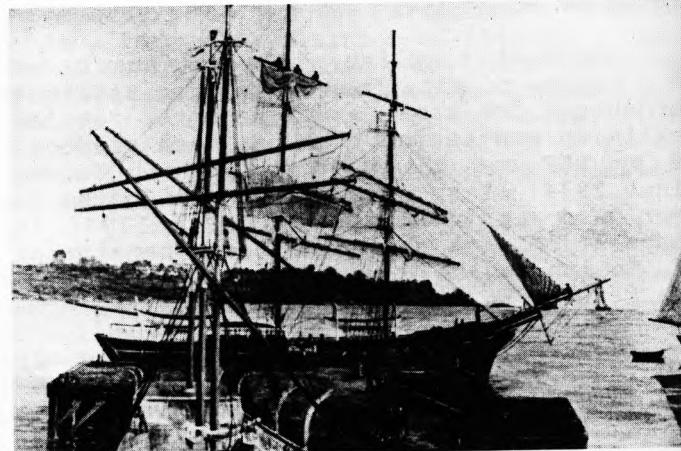
The slide show deals with many aspects of our coastline, viewed from an historical perspective. One of the subjects covered is the shipping industry, and there are slides of schooners and other vessels that used to travel Connecticut waters laden with goods for the coastal towns. A comparison is made with the industry as it is today with our major ports receiving petroleum products and industrial supplies.

Shipping is one of the coastline's economic resources. In addition, the slide show views the coastline from an ecological, recreational, and cultural standpoint, which includes, as well, its sheer scenic beauty. Perhaps the most impressive feature of the Connecticut coastline is its highly diverse nature.

As author and photographer for the slide show, I discovered that many Connecticut towns have valuable resources in their historical societies and libraries. I contacted most of them in the coastal towns, and was permitted to duplicate old photographs from their collections. In addition to photographs, many historical societies have publications that contain much useful information regarding early days along the Connecticut coast.



Photo: Connecticut Historical Society, Hartford



For me, the most difficult aspect of the task was condensing the material that I had gathered - that is, selecting just which slides to use in the show out of the many that I had photographed, and including as many of the fascinating anecdotes and historical vignettes as possible in a relatively short script. Those of you who view the slide show will agree with me I am sure that we are very fortunate to live in a state with a coastline rich in history and resources.

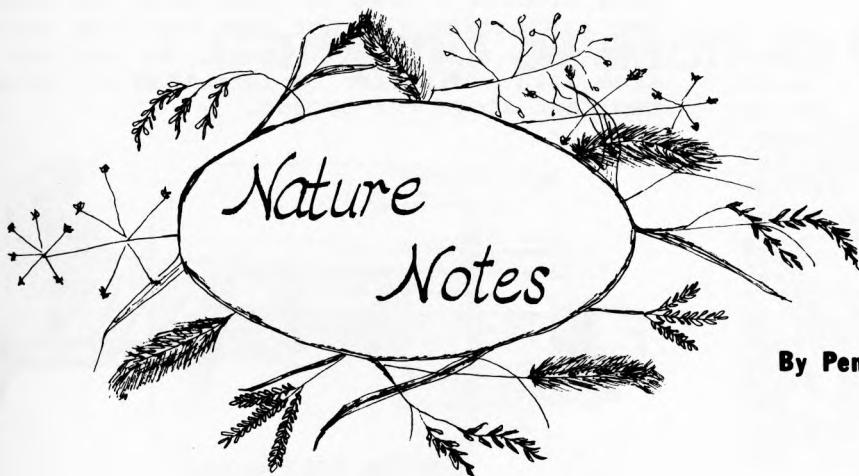
In addition to its new slide show, the Coastal Area Management Program has other materials which are available to the public. These include various publications, newsletters, films on coastal management and estuary preservation, and large displays which can be used for exhibits. The Program also has public speakers available to talk on coastal management issues upon request.

If you are a member of an organization that would be interested in a presentation of such a program or in having a speaker directly involved with the program address your group, contact: Mary Ann Dickinson, Conn. Coastal Area Management Program, 71 Capitol Avenue, Hartford, CT 06115, 566-7404.

The CAM article this month was written by Penni Sharp. Ms. Sharp is a regular contributor to the Bulletin through her "Nature Notes" column.

* * * *

Editor's Note: the CAM Program publishes Land's End, a quarterly newsletter about coastal issues and CAM activities. If you wish to receive Land's End, which is available free of charge, contact the CAM Program at the above address.



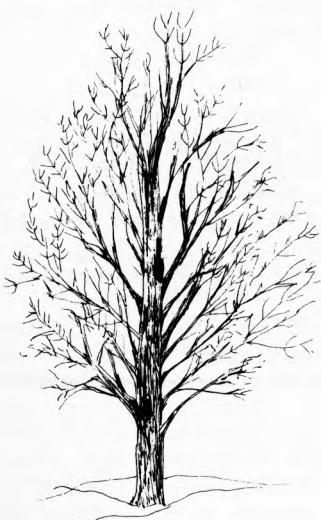
By Penni Sharp

Your March Environment

March is: pussy willows...skunk cabbage in bloom...yellow flowers of spice bush brighten the marshes...spring peepers call at night...Saturn visible in the night sky...hawks on the move...squirrels feed on red maple buds...warming days...tree buds swell...wood-cocks perform their courtship flights.

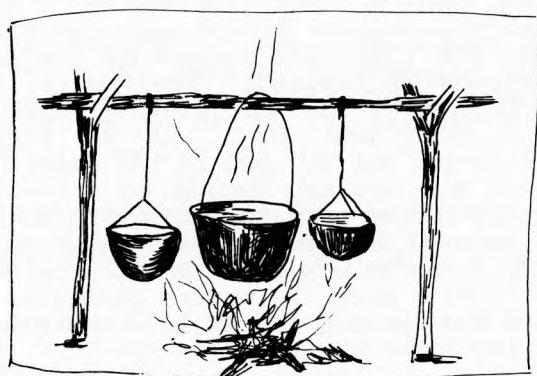
With the winter season due to end on the 21st of this month, some early signs of spring make their appearance on the scene. A close look at the March landscape may reveal some of the subtle spring colors. The outer twigs of the red maple (*acer rubrum*) take on a more intense reddish hue, branches of willow trees (*salicaceae*) appear yellowish, and the characteristic soft grey catkins emerge on the pussy willows (*salix discolor*).

There is another tree that comes into prominence at this time of year, this one because of its sweet sap which flows abundantly during late February and March. A familiar sight along country roads are the sap buckets that hang upon stately sugar maples (*acer saccharum*).



History of Maple Sugaring

The use of maple syrup and sap goes back in history to the time when Indians inhabited the northeast. Perhaps the first Indian to realize the sweet properties of the maple sap had observed a squirrel drinking sap from the end of a broken twig. Maple syrup and sugar were important products to early settlers. For many of them, it was the sole sweetener in the household.



Sugar Production of Trees

All trees manufacture sugar for their own use and in proportions suited to their growth. The sugar is formed during the complex process of photosynthesis, in which a green plant, in the presence of sunlight, essentially converts carbon dioxide and water to sugar. Oxygen is a by product of this exchange. All trees contain sap, the water and minerals carried mostly in the sapwood layer of the tree. While sugar exists in watery solution in many trees, the sap from the maple is unique in that it is easily drawn and contains no minerals offensive to taste. Sugar maples have an immense layer of sapwood which may explain their abundant flow of sap.

Weather and Maple Syrup

Weather plays an important role in the production of sap. It is available in large quantity only after a winter of severe freezing. Sap does not run if the thermometer reads below 30° - 32° and will stop running if the temperature rises to 50° or thereabouts. Sap will not run when trees are in leaf. Alternating cold or warm weather is best for sap movement. Cold nights and warm days are a syrup producer's delight. This kind of weather pattern is typical of March in New England and fortunately coincides with the time that the water content of the sugar maple is highest. The other time of year in which similar weather conditions exist (fall and winter), are poor for tapping trees due to the low sugar concentration in the trees. Some claim that the best syrup is made in late winter while the ground is still covered with snow. At this time, continued cold weather during the nights will preclude fermentation of the sap, thus producing a syrup that is free of impurities. A good sap season depends not only on the whims of late winter weather, but upon a good growth season the previous summer.

Syrup Yields

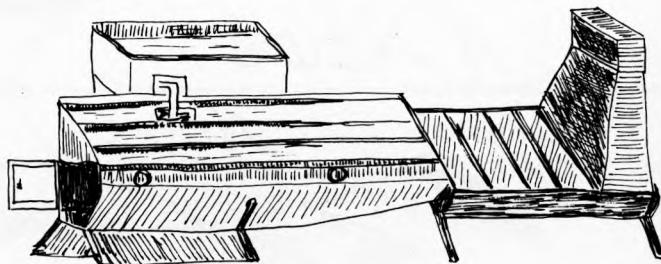
If you have sugar maples and care to try your hand at syrup or sugar making, you may be interested in some yield figures. These seem to vary tremendously from year to year and tree to tree. The amount of sap as well as its quality depend upon the age and size of the tree, the nature of the season and methods of tapping. One figure states that 35 quarts of sap yield 1 quart of syrup - this was given as an average. Factor in the energy cost in the evaporating process, and you may decide to leave syrup producing to the professionals! In Connecticut, several nature centers tap trees and produce syrup as a part of their programs in March. Check with the nature center in your area if you are interested in witnessing the "sugaring."



To Tap A Tree

Maple trees are tapped by boring a two inch deep hole (about 1/2 inch in diameter) that slopes slightly upward, inserting a spout, and hanging a bucket on the spout. There are many do's and don't for the tap-

ping process - some of them are: do cover the sap bucket, do not tap the tree above four feet from ground level, do not tap a tree with a diameter of less than 12 inches two feet above the ground.



Boiling Maple Syrup

Producing syrup from sap is essentially eliminating surplus water by means of evaporation. For this reason, special "evaporators" heated by wood fires are used. The process can be complicated, as just the right temperature must be maintained, hot enough to boil the sap fairly rapidly, yet not so hot as to burn it.

For any of our readers who desire to learn more about the process of syrup and sugar making, I recommend an informative and enjoyable book The Maple Sugar Book by Helen and Scott Nearing.

Where to Go

If you would like to visit a sugar maple operation to see firsthand some of the things I have described in this month's column then make arrangements with one of the following:

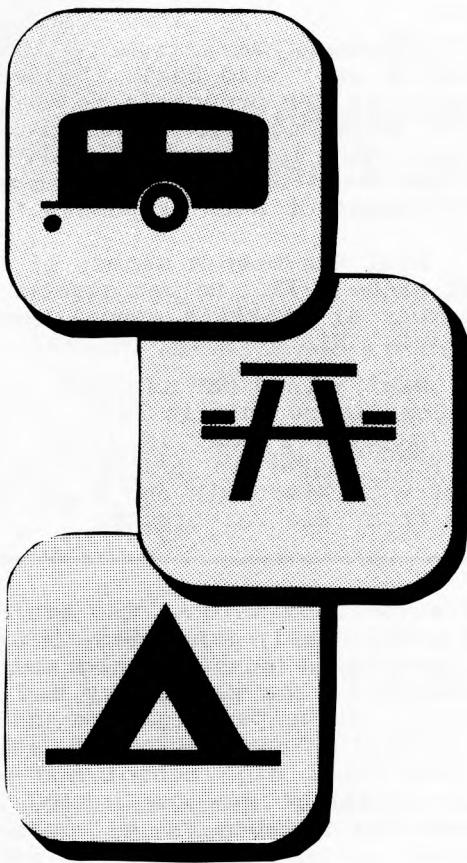
Stamford Museum
& Nature Center
Stamford - 322-1646
Sats. & Suns. until Mar. 13

New Canaan Nature Center
New Canaan - 966-9577
from Mar. 1-28
Tues., Thurs., Sat.
10-4. Sun. 1-4

Maple Grove Farm
North Guilford - 457-1304
Call ahead as space
is limited.

Edward Childs Farm
Norfolk - 542-5202
Mid-March to
Mid-April

Camping Season to Open Soon



The camping season at selected Connecticut state parks and forests officially opens April 15th. And if the 1009 reservations requested to date are any indication then the camping attendance figure for 1977 should surpass the 1/2 million mark reached last year.

DEP's Park and Recreation Unit which manages the state's camping program reports that reservations are coming in at a brisk rate and already some camping areas are filled for choice holiday weekends this season.

"American Legion State Forest in Pleasant Valley is nearly filled for Memorial Day, Fourth of July and Labor Day weekends," reports Parks and Recreation Director Bill Miller. "And the better sites are going fast at places like Hopeville Pond State Park in Jewett City."

Why the great demand for camping in Connecticut? Part of the reason could be that every state camping facility has either fishing or swimming available. Also, Miller explained, "We have the only two state campgrounds in all New England with saltwater beachfront - Hammonasset Beach State Park, Madison, and Rocky Neck State Park, Niantic."

According to Miller, swimming is the most sought after activity of the seasonal camper.

Almost all state campgrounds provide flush toilets, concessions, coin operated showers, and various other amenities. But there are campgrounds such as Macedonia Brook State Park in Kent which appeal to the more "primitive" camper. "At Macedonia Brook you'll find a more rustic setting with excellent hiking along the Appalachian Trail," Miller said.

"In general, the state forest camping areas are more isolated and remote with less facilities available," he added.

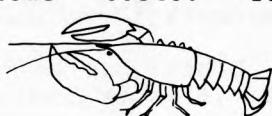
Reservations for camping during the active season of May 15 through Labor Day are accepted by mail only. Applications should be sent to the Hartford Office address (below) on or after January 15 through April 15. After April 15, all requests should be mailed directly to the campground where you wish to camp.

Hammonasset Beach and Rocky Neck are \$3.00 per night per campsite. All other campgrounds are \$2.00 per night per campsite. All lots not reserved are on a first come, first served basis.

For an application, campground directory and other general information contact DEP Parks and Recreation Unit, Room 267, State Office Building, 165 Capitol Avenue, Hartford, Connecticut 06115 - (203) 566-2304.

Marine Institute for Teachers Planned

An association of public and private school systems in southeastern Connecticut is offering "Project Oceanology," a Summer Institute in marine environmental education for teachers. The Institute will be held from August 8-31 and will afford teachers the opportunity to learn about oceanography, water pollution and coastal ecology by doing daily on-the-water and shoreline field studies. Classes will be conducted on board a 50 foot research boat and in a waterfront marine laboratory using oceanographic equipment. All elementary and secondary teachers are eligible to participate. There are no prerequisites; six graduate credits will be earned from Eastern Connecticut State College. Tuition is \$280. Camping and dormitory facilities are available nearby. For more information contact: Dr. Mickey Weiss, Project Oceanology, Avery Point, Groton, Connecticut 06340. Tel. (203) 445-9007.



DEP Man to Lead National Group



Henry E. Beal, Director of DEP's Air Compliance Unit, is the new Chairman of State and Territorial Air Pollution Program Administrators (STAPPA).

The association includes heads of air pollution control agencies from U.S. territories and states. STAPPA was established to represent states' views on program development in the field of air pollution control to governmental bodies and special interest groups.

Upon accepting the position, Beal said his goals were to improve communications among the various states and between the states and the federal government, and to

lead the association in developing and maintaining high national air quality standards.

"We have an extremely important year ahead of us," said Beal. "STAPPA must stay abreast of EPA proposals to initiate new or alter existing air regulations and programs. More importantly, STAPPA must see to it that each state becomes involved in the development of such proposals."

Beal has been a member of the association since 1973. He was elected chairman in December at STAPPA's annual meeting in New Orleans. His term is one year.

Beal joined DEP as Chief Counsel to the Air Compliance Unit in 1972, before assuming the Director's post in 1973. He received his B.A. degree in Economics from the University of Wisconsin and a Juris Doctor degree from Yale University.

EPA Presents 1976 Awards

Four citizens from Connecticut were among twelve individuals and groups from New England named recipients of the Environmental Protection Agency's (EPA) 1976 Environmental Merit Award. The awards represent the highest given by EPA's New England Regional Office. Plaques were presented to award winners by EPA at its annual Citizens' Briefing which was held December 2nd at the New England Aquarium in Boston.

The awards went to the following Connecticut individuals:

Wanda Rickerby

Bethel, Connecticut

Mrs. Rickerby was recognized for her efforts as Director of the Hartford Environmental Services Center which was established for the purpose of collecting, coordinating and disseminating information about state policies and programs to all Connecticut environmental organizations. The Center has been effective in promoting a greater awareness of and concern for environmental matters in the state. Mrs. Rickerby was also recognized for her contributions to other environmental groups in the state and for her efforts to promote more extensive environmental education programs in Connecticut.

Thomas O'Dell

Westbrook, Connecticut

Mr. O'Dell has been involved in a number of activities as Chairman of the Westbrook Con-

servation Commission. The awards committee was particularly impressed with the many environmental education programs he has instituted at the elementary and high school levels. He helped organize and participate in a "Youth Conservation Education Program" at the local high school and has arranged for wildlife demonstrations at schools throughout Westbrook. Mr. O'Dell has been active in land use issues and for three years served as supervisor for the Middlesex County Soil and Water Conservation District.

Thomas Jackson

Meriden, Connecticut

Mr. Jackson is a reporter for the Meriden Record. His many articles on environmental issues, particularly a series on toxic chemicals, helped bring about a better understanding of these complex issues.

Steven Soumerai

East Hartford, Connecticut

Mr. Soumerai was recognized for his efforts as program manager for the Connecticut Air Conservation Committee, a section of the Connecticut Lung Association. The awards committee was particularly impressed with his efforts to encourage the wide use of the standard air pollution index by newspapers, television, and radio stations across the state. He has also helped research and prepare testimony on a variety of air pollution issues for the Lung Association.



Open Space

...Acquisitions

...Appraisals

...Grants-in-Aid

Silver Sands State Park, Milford. Acquisition of 72.5 acres includes Charles Island (15 acres) and additional beach front. Parcels complete State purchases in area. Cost: \$552,000.

West Rock Ridge State Park, Bethany, Hamden, New Haven, Woodbridge. Acquisition of 163 acres towards planned 2,000 total acre purchase. Ridge top overlooking City of New Haven and Long Island Sound. Cost: \$869,500.

Quinnipiac River State Park, North Haven, Wallingford. Acquisition of 50 acres along Quinnipiac River brings State owned land total in area 357 acres. Cost: \$1,000,000.

Lester E. Shippee State Park, Killingly. Acquisition of 152 acres. 99% wooded, hilly terrain. Passive recreation potential. Gift value: \$350,000.

The above entries represent a few of the major acquisitions in DEP's ledger for 1976. The Department's Open Space Acquisition Unit is responsible for the acquisition by purchase, devise, or gift of all lands required by the Department for its many programs including lands for flood control, parks, forests, hunting areas, fishing access and boat launching areas. Additional responsibilities of the Unit include preparation and review of appraisals and administration of the municipal Grants-in-Aid program.

Acquisition

Since its formation in July of 1975, the Unit has acquired over 1,000 acres of land having a value of over 2 million dollars. Acquisition of 33 parcels containing 390 acres of parkland, 262 acres of forestland, 116 acres for flood control, 162 acres for hunting and fishing areas have been completed by the Unit in the past year. Outstanding gifts of land consisting of 180 acres in Killingly, 48 acres in Pomfret, 15 acres in Southbury, 7 acres in Glastonbury and a 14-acre scenic easement on the Connecticut River.

Appraisal

The Unit's appraisal section prepares staff appraisals, reviews fee appraisals, prepares condemnation cases and is generally responsible for the justification of all values of land acquired or leased by the Department or under the Grants-in-Aid program. The Unit has prepared 11 appraisal reports on 750 acres of land valued at over \$750,000.00. The Unit also conducted reviews of 80 fee reports and 43 appraisals for rental, relocation and fire insurance.

Grants-in-Aid

The Municipal Grant-in-Aid Program assisted eight communities in the acquisition of 1,137 acres of prime open space land. Federal assistance in the amount of \$945,198.16 was received by these communities. Additionally, five additional municipalities have completed acquisition of 343 acres and billings of \$666,260.09 have been prepared.

Seven communities have applications pending proposing acquisition of 381 acres of open space land with assistance in the amount of \$1,660,000.

Eleven municipalities of the State have recreational development projects underway that will be assisted by the Bureau of Outdoor Recreation funding in the amount of \$690,509.86. In addition, three towns have either completed projects or received partial Federal funding in the amount of \$287,427.94 for municipal recreational development projects.

In summary, the Open Space Acquisition Unit assisted the municipalities of the State in receiving \$4,249,396.05 in Federal assistance. Additionally, the State received \$151,043.42 of the assistance from the Bureau of Outdoor Recreation for acquisition of forest and park lands.



Department of Planning and Energy Policy:

P.E.P. TALK

by Tom Richard Strumolo

Connecticut's Energy Outlook, 1977-1996

The Connecticut Energy Advisory Board has presented to the Governor and General Assembly its annual report, Connecticut's Energy Outlook, 1977 - 1996. This, the Board's third such report, was prepared with assistance from the staff of the Department of Planning and Energy Policy and provides a comprehensive look at the state's energy past, present, and potentially disruptive future.

Although certain conservation efforts in the years since the OPEC oil embargo are documented in the report, the overall tone of the outlook is not pleasant.

The Board is encouraged that endeavors to conserve energy in each of the residential, commercial, and industrial sectors in the year directly following the embargo seem to have been maintained through 1976. (Motor gasoline consumption was back up in 1975 to 1973 levels and even higher in 1976.)

There is, unfortunately, significantly more discouraging news. Last year the Advisory Board saw potential shortfalls in natural gas and petroleum supplies in the 20-year study period and recommended specific policy options that would temper their effects. This year the Board projects greater potential imbalances in the supply

and demand of the same two fuels and warns that virtually no action was taken in the last year to bring about the needed long term policy changes.

What we have in Connecticut, therefore, is high petroleum dependence, resultant high energy prices, and a great deal of room for improvement in the efficiency of our energy consumption - and no apparent feeling of urgency in acting upon them. As long as procrastination is a part of our energy conservation effort we can expect potential shortages to be projected.

The energy situation described in the annual report is not just discouraging, it is dangerous and contrary to our supposed goals of economic, environmental, and personal well-being.

The Board's goals are the same broad goals of the Department of Planning and Energy Policy that have been presented in this column: decreased petroleum dependence through conservation and improved efficiency as well as long range growth of alternative energy sources. Neither the Board, this department, the Governor, nor the General Assembly alone can maintain momentum towards a sound and responsible energy policy. Momentum requires strong and active support from each Connecticut citizen.

New Publication

DEP Citizens' Bulletin

Published eleven times a year by the Department of Environmental Protection. Yearly subscription \$2.00. 2nd class postage paid at Hartford, Connecticut. Please forward any address change immediately. Bulletin material may be reprinted without permission provided credit is given, unless otherwise noted. Address all communications to the Editor, DEP Citizens' Bulletin, Department of Environmental Protection, Room 112, State Office Building, Hartford, Connecticut 06115.
* * * *

The Citizens' Bulletin is supported in part by funds provided by the U.S. Department of the Interior, as authorized under the Water Resources Research Act of 1964, PL 88-379.

The Connecticut Forest and Park Association has recently published in oversized booklet form "Connecticut in Perspective: A Bicentennial View of its Land and its People" by Henry W. Hicock and Bruce B. Miner of Cheshire.

This document offers a comprehensive history of both Connecticut's land and people to the present time, and is complete with bibliography. It was reprinted from Connecticut Woodlands Summer and Fall issues 1976. Connecticut Woodlands is the Association's quarterly publication.

Single copies of the booklet are available for \$1.25 including tax, postage, and handling. Write to the Connecticut Forest and Park Association, 1010 Main Street, East Hartford, Connecticut 06108. (203) 289-3637.

Permits Issued Jan.-Feb., 1977

Air Compliance

January 27
Cellu Products Co.
Permit to operate a Cleaver Brooks Firetube Boiler at Cellu Products Co. in East Hartford

February 1
City of Middletown
Permit to operate a sewage sludge incinerator at the Middletown Water Pollution Control Plant

February 1
Otto Pflueger Foundry Inc.
Permits to construct and operate an induction melting furnace for brass and bronze in North Haven

February 1
United Technologies Corp.
Pratt and Whitney Aircraft Division
Extension of permit to operate a watertube boiler at the Pratt and Whitney plant in Middletown

February 7
United Technologies Corp.
Sikorsky Aircraft Division
Permits to construct an acid etch tank and a salt bath tank at the Sikorsky plant in Stratford

February 15
Connecticut Yankee Greyhound Racing, Inc.
Indirect Source Permit to operate a greyhound racing facility in Plainfield

February 16
Pervel Industries, Inc.
Permit to operate a textile flocking machine with pre-dryer and drying oven at Pervel's plant in the town of Plainfield

February 16
Fountain Hill Cemetery Association
Permit to operate a pathological incinerator in the town of Deep River

February 16
Connecticut Department of Transportation
Indirect Source Permit to construct I-86 from Vernon to the Willington-Ashford town line

February 18
U.S. Electrical Motors
Permit to construct and operate a motor burnout oven in the town of Milford

Water Compliance

February 4
Wyre Wynd, Inc.
Permit to discharge treated wastewaters into the groundwaters of the Quinebaug River Watershed in the town of Griswold

February 7
Town of Newington
Permit to discharge vehicle washwater from town firehouse into groundwaters of the Rockhole Brook Watershed

February 7
International Harvester Company
Permit to discharge 1,400 gallons per day of vehicle steam cleaning and washwater to the City of Milford municipal sewerage system

February 16
Nutmeg Chrome Corporation
Permit to discharge treated wastewaters into the groundwaters of the Connecticut River Watershed in West Hartford

February 16
General Muffler and Auto Supply, Inc.
Permit to discharge floor wash water to the groundwaters of the Naugatuck River Watershed

Water Resources

February 14
Castle Rock Associates
Permit to place and maintain random placed boulders in Lindsey Cove at Branford

February 15
Edward Musso
Permit to fill a portion of a pond on his property in the town of Wallingford

February 18
Glen Gray
Permit to construct and maintain a pier, ramp, piles and float in the Saugatuck River at Westport

February 18
Indian Town Association, Inc.
Permit to lengthen breakwater and extend jetty in Mud Creek at Old Saybrook

February 23
Connecticut Department of Transportation
Permit to locate 180' of 15" pipe in a wetland and to discharge roadway runoff through the pipe into the wetland in the town of Canterbury

February 23
Northeast Nuclear Energy Company
Permit to construct an outfall structure and a channel to Long Island Sound at Millstone Nuclear Power Station 3 in Waterford

February 25
Town of Manchester
Permit to reconstruct Adams Street Bridge over the Hockanum River at Manchester

February 25
Town of West Hartford
Permit to construct a maintenance facility and place fill within encroachment lines at Trout Brook in West Hartford

(PCB's cont.)

Taylor further explained that the trout fishery should be unaffected since most of the trout are hatchery raised, and very few hold over through the winter. "This presents little opportunity for PCB's and other toxins in the sediment to accumulate in the trout," Taylor said.

Taylor also pointed out that DEP's role in PCB testing is strictly one of water quality evaluation and management. "Any recommendation as to the edibility of fish exposed to PCB's would originate in the Office of the Commissioner of the State Department of Health," he said.

To date the Commissioner of Health has not issued any warning regarding PCB's and the human consumption of fish taken from Connecticut waters.

Editor's Note:

The Environmental Protection Agency has prohibited industrial discharges of PCB's starting in January of 1978. The newly enacted Toxic Substances Control Act prohibits the manufacture of PCB's after January 1, 1979 and prohibits all PCB processing and distribution in commerce after June 1, 1979.

For additional background information on PCB's in Connecticut see the February 1976 issue of the Citizen's Bulletin.

DEP citizens' bulletin

State of Connecticut
Department of Environmental Protection
State Office Building
Hartford, Connecticut 06115

Phone: 566-5524

Pac Forwards Bottle Legislation

DEP Commissioner Stanley J. Pac, has submitted to the Legislature's Environment Committee a proposal for reusable beverage container legislation.

"It is our intention to provide the greatest possible incentive for the return and reuse of beverage containers," Commissioner Pac said. "I feel that the elimination of non-returnable bottles and the encouragement of maximum container reuse is a vital energy and natural resource conservation measure."

The main difference between the DEP proposal and previously proposed bills is the amount of the deposits to be applied to various sizes of reusable and refillable beverage containers. The refund values established in the DEP proposal are from two to five cents higher than those included in bills presently or previously before the General Assembly.

Commissioner Pac has also recommended legislation to eliminate detachable flip-top cans. "Litter problems and safety considerations, both for humans and wildlife, are primary factors in developing the department's position on flip-top cans," Pac said.

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